



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 2, 2019

Abigail Wacek
Regulatory Consultant to King Technology, Inc.
530 11th Avenue South
Hopkins, MN 55343

Subject: Notification per PRN 98-10 – Updates to marketing language and label instructions
Product Name: Spa Chlorine Disinfectant
EPA Registration Number: 53735-14
Application Date: August 30, 2018
Decision Number: 543190

Dear Ms. Wacek:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you have any questions, you may contact Melanie Bolden at (703) 347-0165 or via email at Bolden.Melanie@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Fuller".

Demson Fuller, Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510P)
Office of Pesticide Programs

[All text in brackets {xxx} is optional and may or may not be included on a final label.]

[All text in braces [xxx] is administrative and will not appear on a final label.]

NOTIFICATION

53735-14

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

05/02/2019

[MASTER LABEL]

**SPA CHLORINE DISINFECTANT
Prefilled Chlorine {Spa} {Hot Tub} Sanitizer**

Active Ingredients:

1,3-dichloro-5, 5-Dimethylhydantoin.....81.1%

1,3-dichloro-5-ethyl-5-methylhydantoin.....16.1%

Other Ingredients:..... 2.8%

Total:100.0%

Keep Out of Reach of Children

DANGER

**{SEE {FIRST AID} AND PRECAUTIONARY
STATEMENTS ON BACK PANEL}**

{See Enclosed Instruction Manual for Complete Directions for Use}

EPA Reg. No.: 53735-14

EPA Est. No.: xxxxx-xx

Distributed By: King Technology, Inc.
530 11th Ave S
Hopkins, MN 55343

Net Wt.: xxx grams

FIRST AID: If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. If Swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsion may be needed.

IN CASE OF MEDICAL EMERGENCY CALL 1-800-424-9300.

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS: DANGER: Corrosive. Causes irreversible eye and skin damage. May be fatal if swallowed. Irritating to nose and throat. Avoid breathing dust and fumes. Do not get in eyes, on skin or on clothing. Wear goggles or safety glasses and rubber gloves when handling product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PHYSICAL AND CHEMICAL HAZARDS: STRONG OXIDIZING AGENT: Do not mix with other chemicals. Mix only with water. Never add water to product. Always add product to large quantities of water. Use clean dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire and explosion. Contamination with moisture, organic matter or other chemicals will start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well-ventilated area. Flood area with large volumes of water.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms.

Note: Buyer assumes all responsibility for safety and use not in accordance with directions.

[Product Description and Directions for Use with In-Line, ~~Filter Well and Floating~~ System]

Product Description: The SPA CHLORINE DISINFECTANT is {a} {an} {innovative} {revolutionary} way to maintain a low level of {chlorine} {sanitization} {disinfection} {tailor made} {perfect} for use with the [Pool Frog Mineral Reservoir{53735-11 Brand Name}](#) (EPA Reg. No. 53735-11) that reduce{s} chlorine use. ~~{The SPA CHLORINE DISINFECTANT {may be} {is} used with the Pool Frog Mineral Reservoir in the {In-line {Spa} {Hot Tub} System} {or} {Floating {Spa} {Hot Tub} System} for weeks of low level {chlorine} {sanitization} {disinfection} protection.}~~ Together they make {spa} {hot tub} care a breeze with up to 75% less chlorine* so the water feels softer and looks crystal clear with no smelly odors, no adding chlorine daily and no weekly shocking. Swimsuit colors stay bright and {spa} {hot tub} surfaces maintain their brilliance longer. {Experience the difference [Pool Frog Mineral Reservoir{53735-11 Brand Name}](#) and SPA CHLORINE DISINFECTANT will make in your {spa} {hot tub}.}

Directions for Use: It is a violation of federal law to use this product in a manner inconsistent with its labeling.

For use in {spas} {hot tubs} up to {500} {600} gallons. Use the SPA CHLORINE DISINFECTANT with the [Pool Frog Mineral Reservoir{53735-11 Brand Name}](#) in the {In-Line System} ~~{Filter Well System} {or} {Floating System}~~. Ensure all {spa} {hot tub} equipment is working properly. Operate ~~the~~ pump and filter ~~should be operated~~ {for at least 3 hours per day} ~~{as recommended by your hot tub manufacturer}~~. Clean filter following manufacturer's directions. May be used with a previously filled {hot tub} {spa} unless it was sanitized with bromine or biguanides. Then drain and fill {spa} {hot tub} with fresh water before using this product.

{Start-up:} Balance the water according to the water balance guidelines with pH between 7.2 – 7.8 and total alkalinity at 80 to 120 ppm. {After balancing,} {Begin with} {establish} a free chlorine residual of 0.5 to 1.0 ppm in the {spa} {hot tub} {with} {from [Frog Jump Start{53735-12 Brand Name}](#) start-up shock} ~~{that came in the package}~~ {or} an EPA approved {spa} {hot tub} chlorine shock following the directions for that product. {When using other products as outlined in directions for this product, always follow directions on those products.}

Setting the Output: The SPA CHLORINE DISINFECTANT is pre-filled and adjustable to meet the needs of each {spa} {hot tub} use. ~~{Typically In-Line System users will begin on setting # {while Floating System users will begin on setting #} and adjust up or down from there.}~~ {Initially set cartridge per your gallon size: [200x {-x}](#) gallons - setting x, [250x {-x}](#) gallons – setting x, [300x {-x}](#) gallons – setting x, [350x {-x}](#) gallons – setting x, [400 gallons – setting x](#), [450 gallons – setting x](#), [500 gallons – setting x](#), [550 gallons – setting x](#), [600 gallons – setting x](#).} {Hold the bottom and turn the top of the cartridge until the correct number appears in the setting window}. ~~{Turn the dial {on the bottom of} the cartridge to the correct setting number.}~~ {See the setting chart in the manual for best results.}

~~{Then use SPA CHLORINE DISINFECTANT in(to) {one of} the following system(s):}~~

~~**{{Using}The In-line Mineral {Spa} {Hot Tub} System} {Inserting the Cartridge}:}**~~

~~Open cap of Inline System, push down and turn cartridge holder counter-clockwise to unlock. Pull holder out. Snap cartridge into {lower} {bottom} section {marked {"Bromine} {or Chlorine} {or SmartChlor} "}. The [Pool Frog Mineral Reservoir{53735-11 Brand Name}](#) cartridge will be in the top section marked "Minerals." Make sure to line up indent on cartridge with raised line on holder. After cartridge is snapped in, replace holder by lining up arrow on holder with arrow on system lip, push down and rotate clockwise to lock in place. Replace cap.}~~

~~**{Using} The {In-Line} {Filter Well} System:** {Remove {cover to filter well} {filter cap and filter plate}. {Remove cartridge holder from hot tub by {pulling up on the handle} {squeezing the handle together and pulling up}. Snap cartridge into {one} {top} {bottom} {left side} {right side} {front} back} opening of the holder. To do this, {insert cartridge into opening {at an angle and twist} until the tab on the holder locks into the {catch} {indent} on the cartridge} {put the dial end of cartridge into the holder first by connecting the tab on the holder with the indent in the cartridge. Then push the top part of the cartridge {up} {in} until it snaps into place.} For best results insert the Pool Frog Mineral Reservoir Cartridge (EPA Reg. No. 53735-11) into the other opening. When cartridge is snapped in, {replace filter well cover} {replace holder under filter plate. Then replace the filter cap.}}~~

~~**{{Using} The Floating Mineral Spa System} {Using the SPA CHLORINE DISINFECTANT}:}**~~ {Push the cartridge into the bottom opening of the Floating Spa System} and place entire system in the {spa} {hot tub} water.}

~~{Must be used with} {When using} the [Pool Frog Mineral Reservoir Cartridge](#), {and} maintain a free chlorine level of 0.5 – 1.0 ppm. {{Initially} {For the first week} monitor free chlorine levels daily and adjust the cartridge up or down by one setting per day until the desired chlorine level is achieved. Adjusting to a higher setting will increase the chlorine output while a lower setting will decrease it.} {If your Test Strip consistently shows lighter than the {free} {active} chlorine block on the Test Strip label, then adjust your setting up by one number. If showing a darker color, lower the setting one number.}}~~

Replacing the Cartridge: When empty the [Brand](#) Test Strips will show a lighter color than the out indicator on the [Brand](#) Test Strip label. When this happens remove the SPA CHLORINE DISINFECTANT from the system, drain the water and shake slightly to see if it is empty. Follow disposal instructions and replace with a new SPA CHLORINE DISINFECTANT. Do not discard or recycle cartridge if a small amount of chlorine remains. ~~{Place in the {spa} {hot tub} to float on its own} {or} {Place back in the in-line system}~~ until completely empty.

[Keeping the pH in the proper range of 7.2 to 7.8 will allow SPA CHLORINE DISINFECTANT to keep the free chlorine level between 0.5 and 1.0 ppm with little](#)

adjusting. {If your Test Strip consistently shows lighter than the {free} {active} chlorine block on the Test Strip label, then adjust your setting up by one number. If showing a darker color, lower the setting one number.}

Shock the {spa} {hot tub} when you replace SPA CHLORINE DISINFECTANT or {once a month}. {Add clarifier occasionally if the water should become cloudy.} With SPA CHLORINE DISINFECTANT less shocking is required because {of the chlorine {bank} {reserve} (measured as total chlorine) that is {ready to use} {automatically converted to {active} {free} chlorine} when needed} {it maintains a consistent level of sanitization even when people enter the {spa} {hot tub}}.

REENTRY into treated {spas} {hot tubs} is prohibited above levels of 5 ppm available {free} chlorine as measured by a suitable test kit due to risk of bodily injury.

Product Description and Directions for Use with Floating/Flipping System

Product Description: The SPA CHLORINE DISINFECTANT is {a} {an} {innovative} {revolutionary} way to maintain a low level of {chlorine} {sanitization} {disinfection} {tailor made} {perfect} for use with [Pool-Frog Mineral Reservoir](#){53735-11 Brand Name} that reduce{s} chlorine use. Together they make {spa} {hot tub} care a breeze with up to 75% less chlorine*_so the water feels softer and looks crystal clear with no smelly odors, no adding chlorine daily and no weekly shocking. Swimsuit colors stay bright and {spa} {hot tub} surfaces maintain their brilliance longer.

Directions for Use: It is a violation of federal law to use this product in a manner inconsistent with its labeling.

For use in {spas} {hot tubs} up to {500} {600} gallons. Use only with the [Pool-Frog Mineral Reservoir](#){53735-11 Brand Name}. Ensure all {spa} {hot tub} equipment is working properly. Operate the pump and filter {for at least 3 hours per day} [as recommended by your hot tub manufacturer](#). Clean filter following manufacturer's directions. May be used with a previously filled {spa} {hot tub} unless it was sanitized with bromine [or biguanides](#). Then drain and fill {spa} {hot tub} with fresh water [before using this product](#).

Start-up: Balance the water according to the water balance guidelines with pH between 7.2 – 7.8 and total alkalinity at 80 to 120 ppm. [After balancing](#) {Begin with} {Establish} a free chlorine residual of 0.5 to 1.0 ppm in the {spa} {hot tub} {from} {with} [Frog Jump Start](#){53735-12 Brand Name} start-up shock} [that came with the package](#) {or} {an EPA approved {spa} {hot tub} chlorine shock} {or by other means} following the directions for that product. {When using other products as outlined in directions for this product, always follow directions on those products.}

To assemble:

- Remove outer packaging
- ~~Pool off {protective} {seal} {label} from the flat part of the SPA CHLORINE DISINFECTANT cartridge~~
- Align arrows on {color} [mineral cartridge](#){53735-11 Brand Name} and {color} [chlorine cartridge](#)[SPA CHLORINE DISINFECTANT](#)
- Push together and twist to lock
- {Set the dial on the [chlorine cartridge](#)[SPA CHLORINE DISINFECTANT](#) (see Setting Chart in manual)}
- Place entire system in the {spa} {hot tub} water.
- {{Weekly} {Periodically} test the water to ensure pH balance and a 0.5 to 1.0 ppm free chlorine level}
- {Adjust cartridge setting if needed }
- Shock the {hot tub} {spa} when replacing SPA CHLORINE DISINFECTANT or once a month

Replacing the Cartridge: When {the system flips over} {or} {the Test Strip shows a lighter color than the out indicator on the Test Strip label}, replace the SPA

CHLORINE DISINFECTANT by rotating the two cartridges until the arrows align and pull apart. Drain the water from the old SPA CHLORINE DISINFECTANT and shake slightly to see if it is empty. Follow disposal instructions and replace with a new SPA CHLORINE DISINFECTANT. Do not discard or recycle cartridge if a small amount of chlorine remains. Place in the {spa} {hot tub} to float on its own until completely empty.

{Additional Information:

- Keeping the pH in the proper range of 7.2 to 7.8 will allow SPA CHLORINE DISINFECTANT to keep the free chlorine level between 0.5 and 1.0 ppm with little adjusting. If your Test Strip consistently shows lighter than the {free} {active} chlorine block on the Test Strip label, then adjust your setting up by one number. If showing a darker color, lower the setting one number.}
- With SPA CHLORINE DISINFECTANT less shocking is required because {of the chlorine {bank} {reserve} that is {ready to use} {automatically converted to {active} {free} chlorine} when needed} {it maintains a consistent level of sanitization even when people enter the {spa} {hot tub}.}

REENTRY into treated {spas} {hot tubs} is prohibited above levels of 5 ppm available {free} chlorine as measured by a suitable test kit due to risk of bodily injury.

[The following copy is engraved into the plastic container]

Not a toy

No es un juguete

Keep Out of Reach of Children

DANGER

EPA Reg. No.: 53735-14{-xxxxx}

{kingtechnology.com} [OR] {heycoolpool.com}

{U.S. & Foreign patents pending}

{Patents} {Patent Pending}: {kingtechnology.com/IP} [OR] {heycoolpool.com/IP}

[Product Description and Directions for Use with Filter Well Systems]

Product Description: The SPA CHLORINE DISINFECTANT {{specially made} {custom {fit} {designed}} {exclusively} for {Jacuzzi} {Sundance} {Bullfrog} Spas} is {a} {an} {innovative} {revolutionary} way to maintain a low level of {chlorine} {sanitization} {disinfection} {tailor made} {perfect} for use with the {53735-11 Brand Name} that reduce{s} chlorine use. Together they make {spa} {hot tub} care a breeze with up to 75% less chlorine* so the water feels softer and looks crystal clear with no smelly odors, no adding chlorine daily and no weekly shocking. Swimsuit colors stay bright and {spa} {hot tub} surfaces maintain their brilliance longer. {Experience the difference {53735-11 Brand Name} and SPA CHLORINE DISINFECTANT will make in your {spa} {hot tub}.}

Directions for Use: It is a violation of federal law to use this product in a manner inconsistent with its labeling.

For use in {spas} {hot tubs} up to {500} {600} gallons. Use only with the {53735-11 Brand Name} in the {Sanitizing} System for {Brand Spas}. Ensure all {spa} {hot tub} equipment is working properly. Operate the pump and filter {for at least 3 hours per day} {as recommended by your hot tub manufacturer}. Clean filter following manufacturer's directions. May be used with a previously filled {hot tub} {spa} unless it was sanitized with bromine or biguanides. Then drain and fill {spa} {hot tub} with fresh water before using this product.

{Start-up:} Balance the water according to the water balance guidelines with pH between 7.2 – 7.8 and total alkalinity at 80 to 120 ppm. {After balancing,} {Begin with} {establish} a free chlorine residual of 0.5 to 1.0 ppm in the {spa} {hot tub} {with} {from {53735-12 Brand Name} start-up shock} {that came in the package} {or} an EPA approved {spa} {hot tub} chlorine shock following the directions for that product. {When using other products as outlined in directions for this product, always follow directions on those products.}

Setting the Output: The SPA CHLORINE DISINFECTANT is prefilled and adjustable to meet the needs of each {spa} {hot tub} use. Initially set cartridge per your gallon size: x {-x} gallons - setting x, x {-x} gallons – setting x, x {-x} gallons – setting x, x {-x} gallons – setting x, Turn the dial on the bottom of the cartridge to the correct setting. {See the setting chart in the manual for best results.}

{Then use SPA CHLORINE DISINFECTANT in{to} {one of} the following system{s}:}

Using The System for {Brand 1 Spas}: Remove filter snap cap and weir door/filter plate. Remove cartridge carrier from hot tub by pulling up on the handle. Snap cartridge into {one} {top} {bottom} {left side} {right side} {front} back} opening of the

carrier. With the {Brand} logo facing the carrier, put the dial end of cartridge into the carrier first by connecting the tab on the carrier with the indent in the cartridge. Then push the top part of the cartridge {up} {in} until it snaps into place. For best results insert the {53735-11 Brand Name} Cartridge into the other opening. When cartridge is snapped in, replace cartridge carrier between the filter cartridges under weir door/ filter plate pushing down until it stays in place. Then replace the filter snap cap.

Using The System for {Brand 2 Spas}: Remove cover to filter well. Snap cartridge into {one} {top} {bottom} {left side} {right side} {front} back} opening of the {holder} {carrier}. To do this, insert cartridge into opening at an angle and twist until the tab on the holder locks into the {catch} {indent} on the cartridge. For best results insert the {53735-11 Brand Name} Cartridge into the other opening. When cartridge is snapped in, replace filter well cover.

Replacing the Cartridge: When empty the {Brand} Test Strips will show a lighter color than the out indicator on the {Brand} Test Strip label. When this happens remove the SPA CHLORINE DISINFECTANT from the system, drain the water and shake slightly to see if it is empty. Follow disposal instructions and replace with a new SPA CHLORINE DISINFECTANT. Do not discard or recycle cartridge if a small amount of chlorine remains. Place back in the system until completely empty.

Keeping the pH in the proper range of 7.2 to 7.8 will allow SPA CHLORINE DISINFECTANT to keep the free chlorine level between 0.5 and 1.0 ppm with little adjusting. {If your Test Strip consistently shows lighter than the {free} {active} chlorine block on the Test Strip label, then adjust your setting up by one number. If showing a darker color, lower the setting one number.}

Shock the {spa} {hot tub} when you replace SPA CHLORINE DISINFECTANT or once a month. With SPA CHLORINE DISINFECTANT less shocking is required because it maintains a consistent level of sanitization even when people enter the {spa} {hot tub}.

REENTRY into treated {spas} {hot tubs} is prohibited above levels of 5 ppm available {free} chlorine as measured by a suitable test kit due to risk of bodily injury.

STORAGE AND DISPOSAL: Do not contaminate food or feed by storage and disposal.

Pesticide Storage: Keep this product dry in original tightly closed container when not in use. Store in a cool, dry, well-ventilated area away from heat. Moisture may decompose this product and cause a violent reaction leading to fire and explosion. In case of decomposition, isolate container if possible and flood area with large amounts of water to dissolve material before discarding this container

Container Handling: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Rinse thoroughly before recycling or discarding in trash.

[Disclaimers]

* Compared to the ANSI minimum recommended chlorine level of 2.0 ppm for a residential {spa} {hot tub}.

** Compared to daily shocking or shocking each time the {spa} {hot tub} is used

[Operational Instructions for In-Line Mineral Spa System]

[All text is optional]

In-Line Sanitizing System Operating Instructions

Congratulations!

{Your {spa} {hot tub} came with a complete mineral and chlorine {sanitation} {disinfecting} {disinfection} system. When using the {patented} Pool Frog Mineral Reservoir{53735-11 Brand Name} with the proprietary SPA CHLORINE DISINFECTANT, you'll enjoy your {spa} {hot tub} more with less work and less chlorine.

Less Work Because:

- The Frog Mineral {System} {Technology} {Formula}+ continuously works to control bacteria for four full months.
- Cartridges last longer to eliminate daily maintenance.
- Cartridges are pre-filled for no measuring or mess.
- Simply adjust to your setting and relax for weeks {until it's time to replace the {chlorine} cartridge}.
- With SmartChlorSPA CHLORINE DISINFECTANT shocking is reduced to once a month.

Less Chlorine Because:

- With minerals in the water, chlorine use is cut by up to 75%.*
- It's precisely metered over {2} {3}-4 weeks {so it lasts longer than daily spoon feeding} (on a 350 gallon {spa} {hot tub} with average use).
- With minerals and low levels of chlorine, the water feels softer.
- The system reduces odors and leaves the water crystal clear.}

{@ease-Brand} is the {spa} {hot tub} sanitizing system that takes the guess work out of water so you always feel at ease while enjoying your {spa} {hot tub}.

- @ease-Brand creates Fresh Mineral Water that's cleaner, clearer and softer
- @ease-Brand employs SmartChlorSPA CHLORINE DISINFECTANT Technology that knows when and how much free chlorine is needed so it uses less.
- @ease-Brand requires far less shocking – only once a month!}

Register your In-Line System at KingTechnology.com [company website]

{Welcome to Fresh Mineral Water with SPA CHLORINE DISINFECTANT technology courtesy of Frog. This {spa} {hot tub} water care system destroys bacteria to keep your {spa} {hot tub} clean with less work and up to 75% less chlorine.* There are two cartridges – the top one holds our {patented} mineral formula while the bottom one has a different kind of chlorine that is smart about when it's needed and when it's not. Its revolutionary formula creates a {bank} {reserve} of chlorine that is {equivalent to} {detected as} {read as} {measured as} a total chlorine reading on a test strip. Over time, this {bank} {reserve} automatically converts to {active} {free} chlorine when needed to take care of the bacteria and contaminants in the water. The {active} {free} level stays at a low 0.5 ppm which is tailor made for use with Frog minerals that reduce chlorine use up to 75%*.

{Simply set and insert into the bottom section of the In-Line System. Everything is prefilled

King Technology: Spa Chlorine Disinfectant

Label Date: AugustMarch 2018

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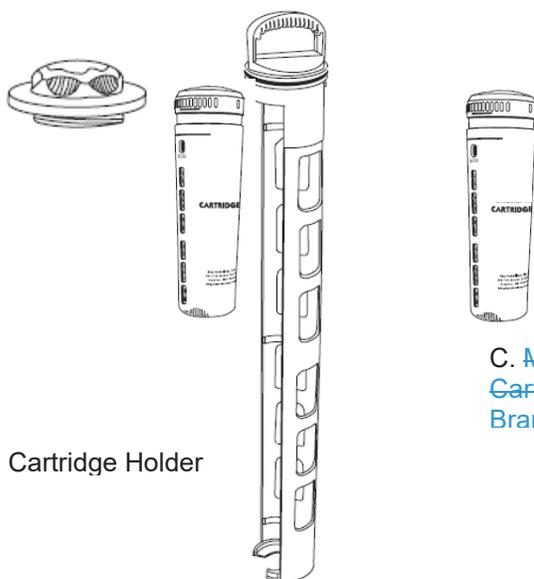
and contained for no mess, no guess {and} no stress {spa} {hot tub} care.}

{You're going to love your System. If you have any questions, contact our customer service representatives at **800-222-0169.**}

* Compared to the minimum ANSI recommended chlorine level of 2.0 ppm for a {spa} {hot tub}.

{Let Us Dissect This System For You: The complete In-Line System}

The In-Line System is made up of (A) a cap that is easily distinguishable among the fittings on the top {rim} {edge} of the {spa} {hot tub}, (B) a cartridge holder that pulls out of the installed system inside the {spa} {hot tub}, (C) a [mineral cartridge{53735-11 Brand Name}](#) that helps control bacteria in the water and (D) a {chlorine} {sanitizer} {disinfectant} SPA CHLORINE DISINFECTANT cartridge that helps support the minerals while oxidizing contaminants like body oils {and ammonia compounds responsible for smelly chloramines}. The cartridges are adjustable to meet your specific {spa} {hot tub} water care needs.



B. Cartridge Holder

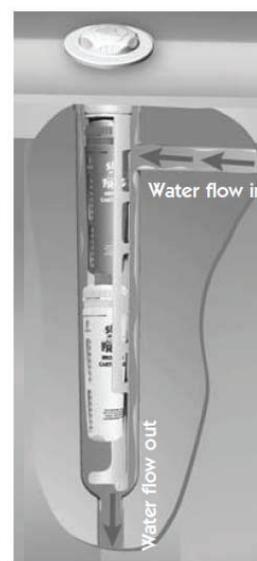
C. [Mineral Cartridge{53735-11 Brand Name}](#)

D. {Chlorine} {Sanitizer} {Disinfectant} SPA CHLORINE DISINFECTANT Cartridge

Cut-away view of cartridges snapped into holder and placed into the In-Line System.

{Start Up} {Step One: Prepar(e){ing} the {Spa} {Hot Tub} {Follow all directions from your {spa} {hot tub} manufacturer on filling and balancing the water in your {spa} {hot tub}. Standard guidelines for balancing the water are as follows:}

Water Balance Guidelines	
pH:	7.2-{7.6} {7.8}
Total Alkalinity:	80-120 ppm
Calcium Hardness:	150-250 ppm
Total Dissolved Solids:	<1500
*Free Chlorine:	0.5-1.0 ppm



1. Fill {spa} {hot tub} with fresh water. If using source water that is high in iron or other metals, see your dealer before filling the tub. It may require the use of a metal control product. {If previously using bromine {and switching to [SmartChlorFrog @ease](#)}, you must drain and refill {your {spa} {hot tub}} {before using this product} {first}}. {If previously using dichlor you may convert to [SmartChlorFrog -{Brand}](#) without having to drain the {spa} {hot tub}.
2. Clean ~~and or~~ replace filter cartridges {when dirty} (*Follow manufacturer's instructions*).
3. Balance water following steps a through d in order. IMPORTANT: Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with the jets on and wait 6 hours before testing again and adding any additional balancing chemicals.
 - a. Take a water sample from the {spa} {hot tub} and dip a **FROG-{Brand}** Test Strip into it.
 - b. Look at the Total Alkalinity reading first. Adjustments should be made to bring the Total Alkalinity in the range of 80 – 120 ppm prior to making any adjustments to pH even if it throws pH off further. {Since pH tends to rise in hot tubs, maintaining a Total Alkalinity closer to the low end of 80 will make managing the hot tub easier.}
 - c. After Total Alkalinity is in range, test for pH. It should be between 7.2 and 7.8. If higher or lower, add a pH adjuster. {Again, due to rising pH in hot tubs, try to maintain as close to the low end of 7.2 as possible.}
 - d. Lastly test for Calcium Hardness. It should be between 150 and 250 ppm. If higher, partially drain the {spa} {hot tub} (about 6 inches) and fill with water low in calcium. If lower, add Calcium Increaser.

{If balancing takes longer than 2 days, shock the water and maintain a chlorine level while continuing balancing.}

4. **Very Important!** ~~{Shock {spa} {hot tub} to establish a 0.5-1.0 ppm free chlorine residual. Add directly to {spa} {hot tub} following manufacturers' directions.} {After balancing and b} Before using cartridges, {establish} {ensure there is} an initial residual of 0.5-1.0 ppm free chlorine with {[Frog Jump Start{53735-12 Brand Name}](#) (**EPA Reg. No. 53735-12**)-start-up shock {that came included in this package}} {an EPA registered chlorine shock.} {{For best results use Frog Jump Start}{This} start-up {spa} {hot tub} shock packet {that} quickly dissolves with an effervescent {fizzing} action – one packet per {500} {600} gallons} {Do not use a non-chlorine shock as it cannot establish a chlorine residual.} Do NOT add any shock product through the In-Line System. Use {the appropriate chlorine test strips or kit and follow manufacturer's instructions.} {Test Strips {that came in the package} to accurately maintain the reduced 0.5 to 1.0 ppm {free} chlorine level following the label directions carefully}.~~

NOTE: Free chlorine levels are reduced up to 75%* when using Frog minerals.

5. {Heat water to the manufacturers recommended temperature.} ~~When {spa} {hot tub} reaches operating temperature per your {spa} {hot tub} manufacturer's directions, remove the shrink wrap from both cartridges. Set the mineral and {chlorine} {sanitizer} {disinfectant} {SPA CHLORINE DISINFECTANT} cartridges according to directions on {phrase will be inserted here to direct the user to the place on the market label that the {spa} {hot tub} care procedures can be found} and insert them into the System.~~
6. {Begin routine {spa} {hot tub} care (see Step 4: Routine Hot Tub Care) as soon as {spa} {hot tub} {start-up is complete} {is prepared}.}

{Step Two: Set the Cartridges}

{The **SPA-FROG{Brand}** In-Line System uses two replaceable cartridges.

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- {Insert Color} = [Mineral\(s\) {Cartridge}{53735-11 Brand Name}](#)
- {Insert Color} = [Chlorine {Cartridge}SPA CHLORINE DISINFECTANT](#)

The combination provides the Fresh Mineral Water benefits of cleaner, clearer and softer water that's easier to take care of. Remove the shrink wrap from both cartridges before proceeding.

- Set the {insert color} [Mineral Cartridge{53735-11 Brand Name}](#) to #6 (hold the bottom and turn the top until 6 appears in the window). No further adjustments are necessary for the life of the cartridge.
- Set the {insert color} [SmartChlor CartridgeSPA CHLORINE DISINFECTANT](#) to the setting that matches your {spa} {hot tub} size in gallons {and pump run time per day}. [SmartChlorSPA CHLORINE DISINFECTANT](#) will maintain a low 0.5 to 1.0 ppm chlorine level as long as the pH stays within 7.2 and 7.8 so there is little need to adjust the cartridge setting. [If needed, you have two additional settings to increase output.](#)

INITIAL START-UP SETTING

[Setting Chart Option #1]

	{Spa} {Hot Tub} Size (Gallons)			
Daily Filter Time	250-300	300-400	400-500	500-600
One Hour	#	#	#	#
Two Hours	#	#	#	#
Four Hours	#	#	#	#
24 hour @ low flow	#	#	#	#

[Setting Chart Option #2]

System Setting Chart	
200 Gallons	#
{250 Gallons}	#
{300 Gallons}	#
{350 Gallons}	#
{400 Gallons}	#
{450 Gallons}	#
{500 Gallons}	#
600 Gallons	#

[Setting Chart Option #3]

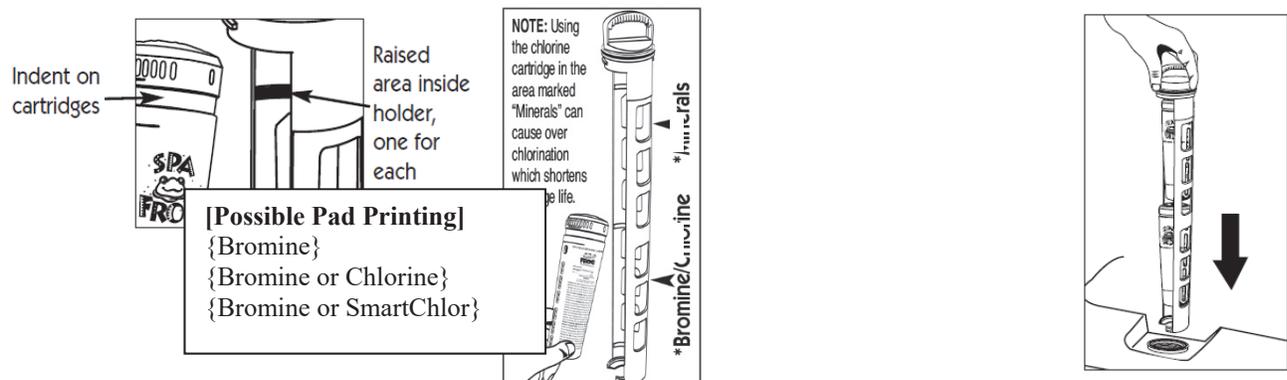
SmartChlor CartridgeSPA CHLORINE DISINFECTANT Setting Chart	
Gallons	Setting #
200-250	#
251-300	#
301-450	#
451-600	#

{NOTE: The more you use the {spa} {hot tub}, for instance when you first {get it} {own it}, the greater the setting to achieve at least 0.5 ppm. (This may require a higher setting than what

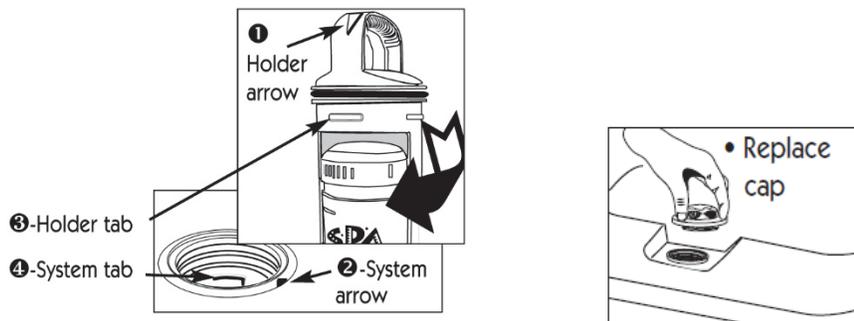
is listed in the chart.) If usage decreases or the chlorine level is greater than 1.0 ppm, lower the setting.}

Step Three: Put{ting} the System to Work

- Open cap of In-Line System and set aside. DO NOT OPEN CAP WHILE JETS ARE ON.
- Remove holder by pushing down and turning counterclockwise 1/8th turn before pulling out.
- {Remove spent cartridges by pushing bottom out through openings in back of holder. Then grab cartridge and pull out.}
- Snap the [Pool Frog Mineral Reservoir](#){53735-11 Brand Name} into the area marked “Minerals” (top portion) and the SPA CHLORINE DISINFECTANT Cartridge into the area marked {“Bromine”} {or Chlorine”} {or SmartChlor”} (bottom portion) making sure to line up the indentation at the top of the cartridges with the raised area on the holder.



- Slowly insert holder into system (see diagrams). Line up holder arrow-① with system arrow-②. Push down until holder tabs-③ go past system tabs-④ and turn holder to the right (clockwise) until it stops. To ensure a locked position, attempt to pull holder up. If it stays in place, the lock is secure.



{Adjusting and When to Replace Pool Frog Mineral Reservoir:

- ~~Set the {color} Pool Frog Mineral Reservoir wide open on #6 by holding the bottom and turning the top until the number 6 appears in the setting window. No further adjustments are necessary.~~

Replacing Cartridges

- ~~{The Pool Frog Mineral Reservoir must be replaced every 4 months. After four months of~~

use, or when draining and refilling the {spa} {hot tub} with fresh water, discard Pool Frog Mineral Reservoir in trash even if, upon shaking, it appears there is spent media left inside. Once wetted the time released minerals in the cartridge are effective up to four months. Do not attempt to reuse the product once removed from the {spa} {hot tub}. {For ease in remembering, mark your calendar with the Reminder Stickers included with this manual.} {See {spa} {hot tub} manufacturer's draining recommendations.}}

{Adjusting and When to Replace SPA CHLORINE DISINFECTANT:

~~{As every {spa} {hot tub} is different, finding the right setting for the {color} {chlorine} {sanitizer} {disinfectant} {SPA CHLORINE DISINFECTANT} cartridge will require monitoring your usage for the first week or two.} {SPA CHLORINE DISINFECTANT will maintain a low 0.5 to 1.0 ppm chlorine level as long as the pH stays within 7.2 and 7.8 so there is little need to adjust the cartridge setting.}~~

~~Begin with an initial setting based on the chart {below} {on page #} and for one week monitor free chlorine levels daily or before each use, adjusting the cartridge by one setting per day until a 0.5-1.0 ppm level has been achieved.~~

~~Use Test Strips that show the exact active (free) chlorine color you should match when using Frog minerals. If the water test shows lighter than that color, the chlorine level is low. To adjust cartridge, remove from system and turn to the next highest setting. If the water test shows darker than that color, the chlorine level is high so the setting should be decreased by one number. If the chlorine {bank} {reserve} (total) reading is lighter than the color on the bottle, check the cartridge {to see if it is} {as it may be} empty.~~

~~{If using standard test strips, the free chlorine level should be 0.5 ppm {to 1.0 ppm}. The total chlorine level will be high when the {product} {cartridge} is first {used} {installed} and slowly come down over the life of the cartridge. When {it} {the total chlorine {reading}} is at 3.0 ppm, check to see if the cartridge is empty.}~~

~~The {color} {chlorine} {sanitizer} {disinfectant} {SPA CHLORINE DISINFECTANT} cartridge needs to be replaced when empty. Drain water from the cartridge and ensure it is empty before discarding in trash or offering for recycling. On {most} {the average 300-400 gallon} {spa}{s} {hot tub}{s}, it will last between {2} {3} and 4 weeks. Always maintain at least 0.5 ppm free chlorine level.}~~

- ~~{Replace {insert color} [Mineral Cartridge](#){53735-11 Brand Name} every four months~~
 - ~~Discard it in the trash even if it appears to have media left inside~~
 - ~~Don't attempt to reuse: the minerals are spent after 4 months~~
 - ~~{Use the enclosed stickers to remind you when it's time to replace}~~
- ~~Replace {insert color} [Chlorine Cartridge](#)[SPA CHLORINE DISINFECTANT](#) when empty based on the {Brand} test strip showing a lighter color than the out indicator {on the {test strip} bottle}~~
 - ~~The life of the cartridge varies depending on {spa} {hot tub} size and number of users. The [SmartChlor Cartridge](#)[SPA CHLORINE DISINFECTANT](#) will last {about 3-4} {up to 4} weeks for an average 400 gallon hot tub.~~
 - ~~Drain water from cartridge to ensure it is empty~~
 - ~~Discard in trash or recycle}~~

{Step Four: Routine} {Regular} {Spa} {Hot Tub} Care {Procedures}:

Always follow the directions for operating your particular {spa} {hot tub}.

- Drain and refill {spa} {hot tub} {as directed by your {spa} {hot tub} manufacturer} {or every four months when FROG minerals need to be replaced}.
- Run filtration system as {manufacturer recommends} {directed by your {spa} {hot tub} manufacturer} {to maintain proper water flow through the In-Line System {or at least 3 hours per day}}.
- {Periodically} {Regularly} {Weekly} test the water {with [@ease{Brand}](#) Test Strips and follow directions in {Step One} {Start-up} for maintaining pH, total alkalinity, {and calcium hardness} NOTE: pH is affected by {weather} bather load, chemicals used, evaporation and the make-up of your source water so maintaining water balance regularly is important. {Use [{Brand}](#) Test Strips {that came with your [@ease {Brand}](#) system} or a test kit to routinely check your pH, Total Alkalinity and Calcium Hardness.}
- [SmartChlor SPA CHLORINE DISINFECTANT](#) will maintain {at least a 0.5 ppm } {a 0.5 – 1.0 ppm} free chlorine {level {as long as the water is balanced} {at all times}. {On the [@ease {Brand}](#) Test Strip is an Out Indicator that shows when the [SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) is empty.} {The SPA CHLORINE DISINFECTANT forms a chlorine {bank} {reserve} that is measured as total chlorine on a standard test strip/kit. This chlorine {bank} {reserve} readily shifts to free chlorine as needed to maintain {a desirable} {our recommended} low level of chlorine {available for disinfection}.} {Based on average {spa} {hot tub} usage,} chlorine will last {on average} {about} {up to} {2} {3}-4 weeks for {spas} {hot tubs} {up to} {of} {350} {400} {500} {600} gallons.}

NOTE: Free chlorine levels are reduced up to 75%* when using Frog minerals {and [SmartChlor SPA CHLORINE DISINFECTANT](#) Technology}. {NOTE: Why [@ease{Brand}](#) Test Strips? The [SmartChlor cartridge SPA CHLORINE DISINFECTANT](#) forms a chlorine reserve that will be inaccurately measured as total chlorine on other test strips. Unlike conventional chlorine, the [SmartChlor SPA CHLORINE DISINFECTANT](#) reserve readily shifts to free chlorine as needed, maintaining spa health with a low level of chlorine.}

- Shock the {spa} {hot tub} with {granular chlorine or} {a non-chlorine shock} {when you replace the SPA CHLORINE DISINFECTANT Cartridge or once a month} {if the water looks cloudy} {and/or add a {spa} {hot tub} clarifier according to label directions}. {With SPA CHLORINE DISINFECTANT, far less shocking is required compared to standard water treatments that require weekly shocking or shocking after every use.} See troubleshooting for other issues.
- {Remember to} [R](#)replace your {[Pool Frog Mineral Reservoir{53735-11 Brand Name}](#) and SPA CHLORINE DISINFECTANT} {[SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#)s and complete [@ease {Brand}](#) System {that comes with a [53735-11 Brand Name](#)}} as directed {under {“Adjusting and When to Replace”} {“[Step 3: Put{ting} the System to Work”}}](#).
- Lubricate [in-line holder](#) o-ring twice a year with a silicone lubricant.

Troubleshooting

Cloudy Water or Low Chlorine Levels

- Check water balance. pH and Total Alkalinity need to be in the proper ranges for the [@ease-{Brand}](#) System to work correctly
- Check [SmartChlor cartridge SPA CHLORINE DISINFECTANT](#) and replace if empty—see instructions under {Replacing Cartridges} {Step 3: Put{ting} the System to Work}
- If [SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) is not empty, turn dial setting up 1 number and monitor chlorine levels for a few days while maintaining water balance. If needed turn dial up again.
- Check your calendar. The entire [@ease-{Brand}](#) In-Line System, including the [mineral cartridge {53735-11 Brand Name}](#), needs to be replaced every four months. Without the minerals, [SmartChlor SPA CHLORINE DISINFECTANT](#) will not be enough to sanitize the {spa} {hot tub}.

[SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) Life

- If hot tub is larger than 400 gallons or has significant bather load, [you may require a higher dial setting which will shorten the cartridge life will be shorter.](#)
- [If you think the cartridge setting is too high, y](#)You can turn the dial setting down 1 number and monitor chlorine levels for a few days while maintaining water balance. If needed turn the dial down again.

High Chlorine Levels

- This is highly unlikely with [@ease-{Brand}](#) because [SmartChlor SPA CHLORINE DISINFECTANT](#) is self-regulating. However, if you use standard test strips, it may appear that total chlorine is higher than the free chlorine. No worries—the strip is measuring the [SmartChlor SPA CHLORINE DISINFECTANT](#) reserve, which will shift to free chlorine as needed. Please always use the [@ease{Brand}](#) Test Strips that were included with your System.

Learn more at [www.KingTechnology.com\[company website\]](#) or call 800.222.0169

~~[Operational Instructions for Floating Mineral {Spa} {Hot Tub} System]~~ ~~[All text is optional]~~

~~Floating System Operation Instructions~~

~~Congratulations! Your {spa} {hot tub} came with a complete mineral and chlorine {sanitation} {disinfecting} {disinfection} system. When using the {patented} Pool Frog Mineral Reservoir with the {proprietary} SPA CHLORINE DISINFECTANT, you'll enjoy your {spa} {hot tub} more with less work and less chlorine.~~

~~Less Work Because:~~

~~The Mineral {System} {Technology} {Formula} continuously works to control bacteria for four full months.~~

~~Cartridges last longer to eliminate daily maintenance.~~

~~Cartridges are pre-filled for no measuring or mess.~~

~~Simply adjust to your settings and relax {for weeks} {until it's time to replace the {chlorine} cartridge}.~~

~~Less Chlorine Because:~~

~~With minerals in the water, chlorine use is cut by up to 75%.*~~

~~Chlorine lasts longer: {up to} {2} {3} 4 weeks on a 350 gallon {spa} {hot tub} with average use.~~

~~With minerals and low levels of chlorine, the water feels softer.~~

~~The system reduces odors and leaves the water crystal clear.~~

~~You're going to love your System. If you have any questions, contact our customer service representatives at **800-222-0169**.~~

~~* Compared to the minimum ANSI recommended chlorine level of 2.0 ppm for a {spa} {hot tub}.~~

~~[Spa] {Hot Tub} Start Up~~

~~Always drain and refill {spa} {hot tub} at least every 4 months.~~

~~Clean and replace filter cartridges when dirty {Follow manufacturer's instructions}.~~

~~Balance water according to the chart~~

~~Heat water to recommended temperature before using cartridges.~~

Water Balance Guidelines

pH:	7.2 – {7.6} {7.8}
Total Alkalinity:	80 – 120 ppm
Calcium Hardness:	150-250 ppm
Total Dissolved Solids:	<1500
*Free Chlorine:	0.5 – 1.0 ppm

NOTE: Free Chlorine levels are reduced up to 75%* when using Frog minerals

~~**Very Important!** Before using cartridges, establish an initial residual of 0.5-1.0 ppm free chlorine with a chlorine shock. {For best results use Frog Jump Start (EPA Reg. No. 53735-12) start-up {spa} {hot tub} shock packet that quickly dissolves with an effervescent fizzing action— one packet per {500} {600} gallons.} {Do not use a non-chlorine shock as it cannot establish a chlorine residual.} Use {the appropriate chlorine test strips or kit and follow manufacturer's instructions.} {Test Strips to accurately maintain the reduced 0.5 to 1.0 ppm chlorine level following the label directions carefully.}~~

~~Begin regular {spa} {hot tub} care procedures (see [phrase will be inserted here to direct the user to the place on the market label that the {spa} {hot tub} care procedures can be found])~~

as soon as start up is complete.

Setting Cartridges

Set the {color} mineral cartridge to wide open on #6 by holding the bottom and turning the top until the number 6 appears in the setting window. No further adjustments are necessary.

{As every {spa} {hot tub} is different, finding the right setting for the {color} {chlorine} {sanitizer} {disinfectant} cartridge will require monitoring your usage for the first week or two.} Begin with an initial setting based on the chart {below} {on page #} and monitor free chlorine levels daily or before each use adjusting the cartridge by one setting per day until a 0.5-1.0 ppm level has been achieved.

Use Test Strips that show the exact active (free) chlorine color you should match when using Frog minerals. If the water test shows lighter than that color, the chlorine level is low. To adjust cartridge, remove from holder and turn to the next highest setting. If the water test shows darker than that color, the chlorine level is high so the setting should be decreased by one number. If the chlorine {bank} {reserve} (total) reading is lighter than the color on the bottle, check the cartridge as it may be empty.

{If using standard test strips, the free chlorine level should be 0.5 ppm {to 1.0 ppm}. The total chlorine level will be high when the {product} {cartridge} is first {used} {installed} {placed in the {spa} {hot tub}} and slowly come down over the life of the cartridge. When {it} {the total chlorine {reading}} is at 3.0 ppm, check to see if the cartridge is empty.}

The {chlorine} {sanitizer} {disinfectant} cartridge needs to be replaced when empty. Drain water from the cartridge and ensure it is empty before discarding in trash or offering for recycling. On most {spas} {hot tubs}, it will last between {2} {3} and 4 weeks. Always maintain at least 0.5 ppm free chlorine level.

INITIAL START-UP SETTING

[Setting Chart Option #1]

	{Spa} {Hot Tub} Size (Gallons)			
Daily Filter Time	250-300	300-400	400-500	500-600
One Hour	#	#	#	#
Two Hours	#	#	#	#
Four Hours	#	#	#	#
24 hour @ low flow	#	#	#	#

[Setting Chart Option #2]

—System Setting Chart	
200 Gallons	#
{250 Gallons}	#
{300 Gallons}	#
{350 Gallons}	#
{400 Gallons}	#
{450 Gallons}	#
{500 Gallons}	#
600 Gallons	#

NOTE: The more you use the {spa} {hot tub}, for instance when you first get it, the greater

the setting to achieve at least 0.5 ppm. (This may require a higher setting than what is listed in the chart.) If usage decreases or the chlorine level is greater than 1.0 ppm, lower the setting.

Using the Floating System

Insert both cartridges into the {color} floating holder by pushing them into the openings until they stay in place.

Let the Floating System free float in the {spa} {hot tub}.

When using the {spa} {hot tub}, simply remove the system, drain most of the water into the {spa} {hot tub} and set on the side of the {spa} {hot tub} inverted so all excess water drains into the holder. REMEMBER TO REPLACE {THE FLOATING SYSTEM} {IT} BACK IN THE WATER WHEN FINISHED USING THE {SPA} {HOT TUB}!

Replacing Cartridges

The Pool Frog Mineral Reservoir must be replaced every 4 months. After four months of use, or when draining and refilling the {spa} {hot tub} with fresh water, discard Pool Frog Mineral Reservoir in trash even if, upon shaking, it appears there is spent media left inside. Once wetted the time released minerals in the cartridge are effective up to four months. Do not attempt to reuse the product once removed from the {spa} {hot tub}. For ease in remembering to replace, mark your calendar with the reminder stickers provided with product.

Replace the {chlorine} {sanitizer} {disinfectant} cartridge when empty. Drain water to ensure cartridge is empty then discard in trash {or offer for recycling}. The cartridge life will vary depending on {spa} {hot tub} size and number of users. Once your usage is determined, mark the calendar with enclosed reminder stickers.

Regular {Spa} {Hot Tub} Care

Run filtration system as recommended by your {spa} {hot tub} manufacturer.

{Periodically test the water to maintain pH, total alkalinity, calcium hardness and a 0.5 ppm {active} {free} chlorine level {with the precise Test Strips that include special directions for using with Frog products}.

Maintain at least a 0.5 ppm free chlorine level at all times. The SPA CHLORINE DISINFECTANT forms a chlorine {bank} {reserve} that is measured as total chlorine on a standard test strip/kit. This chlorine {bank} {reserve} readily shifts to free chlorine as needed to maintain {a desirable} {our recommended} low level of chlorine {available for disinfection}. {Based on average {spa} {hot tub} usage,} chlorine will last {on average} {about} {up to} {2} {3} 4 weeks for {spas} {hot tubs} {up to} {of} {350} {400} {500} {600} gallons.

Shock the {spa} {hot tub} {with granular chlorine or a non-chlorine shock} if the water looks cloudy or add a {spa} {hot tub} clarifier according to label directions. With SPA CHLORINE DISINFECTANT, far less shocking is required compared to standard water treatments that require weekly shocking.

Remember to replace Pool Frog Mineral Reservoir and SPA CHLORINE DISINFECTANT as directed under "Replacing Cartridges".

[Operational Instructions for {Spa} {Hot Tub} Floating/Flipping System] [All text is optional]

Floating {Sanitizing} System {Operation} Instructions

This is not a toy. For {sanitizing} {disinfecting} {spas} {hot tubs} only!

{Welcome to Fresh Mineral Water with Smart Chlor technology courtesy of Frog. This {spa} {hot tub} water care system destroys bacteria to keep your {spa} {hot tub} clean with less work and up to 75% less chlorine.* There are two cartridges – the top one holds our {patented} mineral formula while the bottom one has a new kind of chlorine that is smart about when it's needed and when it's not. Its revolutionary formula creates a {bank} {reserve} of chlorine that is {equivalent to} {detected as} {read as} {measured as} a total chlorine reading on a test strip. Over time, this {bank} {reserve} automatically converts to {active} {free} chlorine when needed to take care of the bacteria and contaminants in the water. The {active} {free} level stays at a low 0.5 ppm which is tailor made for use with Frog minerals that reduce chlorine use up to 75%*.

Simply {connect} {the two cartridges}, {turn} {twist} the dial to set and {toss into} {plop in} the {spa} {hot tub}. Everything is prefilled and contained for no mess, no guess {and} no stress {spa} {hot tub} care. The best part is it flips over when {empty} {out} {it's time to replace {a} {the} {chlorine} cartridge}.

{@ease-Brand} is the hot tub sanitizing system that takes the guess work out of water so you always feel at ease while enjoying your hot tub.

- [@ease-Brand](#) creates Fresh Mineral Water that's cleaner, clearer and softer
- [@ease-Brand](#) employs [SmartChlor SPA CHLORINE DISINFECTANT](#) Technology that knows when and how much free chlorine is needed so it uses less.
- [@ease-Brand](#) flips over when it's time to replace the [SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#)
- [@ease-Brand](#) requires far less shocking – only once a month!}}

You're going to love your System. If you have any questions, contact our customer service representatives at **800-222-0169**.

* Compared to the minimum ANSI recommended chlorine level of 2.0 ppm for a {spa} {hot tub}.
[For complete instructions read the entire manual.](#)

~~[Register your Floating System at KingTechnology.com](#)~~

{Step One: Prepar(e){ing} the {Spa} {Hot Tub} {Start Up}

1. . Fill {spa} {hot tub} with fresh water. If using source water that is high in iron or other metals, see your dealer before filling the {spa} {hot tub}. It may require the use of a metal control product. If previously using bromine and switching to [SmartChlorFrog @ease](#), you must drain and refill your {spa} {hot tub} {before using this product} {first}. {If previously using dichlor you may convert to [SmartChlorFrog -{Brand}](#) without having to drain the {spa} {hot tub}.}

Water Balance Guidelines

pH:	7.2 – {7.6} {7.8}
Total Alkalinity:	80 – 120 ppm
Calcium Hardness:	150-250 ppm
Total Dissolved Solids:	<1500
*Free Chlorine:	0.5 – 1.0 ppm

2. Clean and replace filter cartridges when dirty (*Follow manufacturer's instructions*).
3. ~~{Use Test Strips {included in the package} or a test kit to balance your pH, Total Alkalinity and Calcium Hardness {water} according to the water balance guidelines. {Once the System is in the water, it will maintain the free chlorine level.} {This {spa} {hot tub} system will {control} {maintain} the free chlorine level{of 0.5 – 1.0 ppm.}} pH is affected by {weather} bather load, chemical usage, evaporation and the make-up of your source water.}~~
3. ~~{Alternate #3}~~ Balance water following steps a through d in order. IMPORTANT: Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with the jets on and wait 6 hours before testing again and adding any additional balancing chemicals.
 - a. Take a water sample from the {spa} {hot tub} and dip a FROG Test Strip into it.
 - b. Look at the Total Alkalinity reading first. Adjustments should be made to bring the Total Alkalinity in the range of 80 – 120 ppm prior to making any adjustments to pH even if it throws pH off further. {Since pH tends to rise in hot tubs, maintaining a Total Alkalinity closer to the low end of 80 will make managing the hot tub easier.}
 - c. After Total Alkalinity is in range, test for pH. It should be between 7.2 and 7.8. If higher or lower, add a pH adjuster. {Again, due to rising pH in hot tubs, try to maintain as close to the low end of 7.2 as possible.}
 - d. Lastly test for Calcium Hardness. It should be between 150 and 250 ppm. If higher, partially drain the {spa} {hot tub} (about 6 inches) and fill with water low in calcium. If lower, add Calcium Increaser.

{If balancing takes longer than 2 days, shock the water and maintain a chlorine level while continuing balancing.}

4. **Very Important!** ~~After balancing and b~~Before using cartridges, {establish} {ensure there is} an initial residual of 0.5-1.0 ppm free chlorine with ~~{Frog Jump Start{53735-12 Brand Name}~~ start-up shock {included in this package}} {a chlorine shock}. {{For best results use ~~Frog Jump Start{53735-12 Brand Name}~~} {This} start-up {spa} {hot tub} shock packet {that} quickly dissolves with an effervescent fizzing action – one packet per {500} {600} gallons.} {Do not use a non-chlorine shock as it cannot establish a chlorine residual.} Use {the appropriate chlorine test strips or kit and follow manufacturer's instructions} {Test Strips {included in this package} to accurately maintain the {reduced} {low} 0.5 {-1.0} ppm chlorine level following the label directions carefully}.

NOTE: Free Chlorine levels are reduced up to 75%* when using Frog minerals

5. Heat water to the manufacturer's recommended temperature {before using cartridges}.
6. ~~{Begin routine {spa} {hot tub} care as soon as {spa} {hot tub} {start-up is complete} {is prepared}.}~~

{Using the Floating System} {Step Two: Put{ting} the @ease-~~{Brand}~~System to Work}:

1. ~~{Remove {the} {outer} packaging from both the mineral and chlorine cartridges {and while holding the cartridge over the {hot tub} {spa} remove the {protective} {peel-off} {tear-off} seal {label} on the chlorine cartridge and allow~~

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any loose {fines} {particles} to fall into the water}. NOTE: Small mineral particles may have dislodged from the mineral cartridge in shipping. Simply discard {those particles} in trash. Bring the two cartridges together and line up the arrows on the chlorine cartridge with the unlock symbol on the mineral cartridge. {Push together and twist to {lock} {the lock symbol} {the desired setting number.} {Rotate the two cartridges {until you {hear} {feel} the {safety} {locking} {tab} {two cartridges} click into place} {approximately 90° to lock in place}.

2-1. _____ {Setting the Chlorine Output} {Step Three: Setting the Cartridges}

- {Twist the mineral cartridge opposite of the chlorine cartridge until the setting number for your {spa} {hot tub} size is lined up with the arrow (see chart {below} {on page #}).} {Twist the dial on the {bottom} {chlorine} cartridge to the setting {number} for your {spa} {hot tub} size (see chart).} {Start with the {factory} {middle} {center} {medium} setting.} {SPA CHLORINE DISINFECTANT will maintain this level as long as the pH stays within 7.2 and 7.8 so there is {no} {little} need to adjust the cartridge setting}
- For the first week or so test the water daily with Test Strips that show the exact active (free) chlorine color you should match when using Frog minerals. If the water test shows lighter than that color, the chlorine level is low, {Twist the two cartridges opposite each other to reach one setting higher.} {Turn the dial on the chlorine cartridge to the next highest setting.} If the water test shows darker than that color, the chlorine level is high so the setting should be decreased by one number. Even at the {lowest} {off} setting {of 0} there will be some chlorine released into the {spa} {hot tub}. If the chlorine {bank} {reserve} (total) reading is lighter than the color on the bottle, check the chlorine cartridge as it may be empty.
- {If using standard test strips, the free chlorine level should be 0.5 ppm {to 1.0 ppm}. The total chlorine level will be high when the product is first {used} {installed} {placed in the {spa} {hot tub} and slowly come down over the life of the cartridge. When {it} {the total chlorine {reading}} is at or below 3.0 ppm, the system should be flipping over so check to see if the cartridge is empty.}
- {The {color} {chlorine} {sanitizer} {disinfectant} cartridge needs to be replaced when empty. Drain water from the cartridge and ensure it is empty before discarding in trash or offering for recycling. Always maintain at least 0.5 ppm free chlorine level.}

INITIAL START-UP SETTING
[Setting Chart Option #1]

	{Spa} {Hot Tub} Size (Gallons)			
Daily Filter Time	250-300	300-400	400-500	500-600
One Hour	#	#	#	#
Two Hours	#	#	#	#
Four Hours	#	#	#	#
24 hour @ low flow	#	#	#	#

[Setting Chart Option #2]

System Setting Chart	
200 Gallons	#
{250 Gallons}	#
{300 Gallons}	#
{350 Gallons}	#
{400 Gallons}	#
{450 Gallons}	#
{500 Gallons}	#
600 Gallons	#

[Setting Chart Option #3]

SmartChlor Cartridge SPA CHLORINE DISINFECTANT Setting Chart	
Gallons	Setting #
# - #	#
# - #	#
# - #	#
# - #	#

{NOTE: The more you use the {spa} {hot tub}, for instance when you first {get it} {own it}, the greater the setting to achieve at least 0.5 ppm. (This may require a higher setting than what is listed in the chart.) If usage decreases or the chlorine level is greater than 1.0 ppm, lower the setting.}

3. {Once set, simply toss it into the {spa} {hot tub}}

{graphic callouts:} {insert color} Top Half: mineral cartridge, {insert color} Bottom Half: chlorine cartridge, Setting {#} on SPA CHLORINE DISINFECTANT cartridge, Twist {dial on bottom of chlorine cartridge}

4. Test the water periodically with Test Strips to maintain pH, total alkalinity, calcium hardness and ensure SPA CHLORINE DISINFECTANT is maintaining a 0.5 ppm active (free) chlorine level. {Based on average {spa} {hot tub} usage,} chlorine will last {on average} {about} {up to} {2} {3} 4 weeks for {spas} {hot tubs} {up to} {of} {350} {400} {500} {600} gallons.

5. Follow regular {spa} {hot tub} care procedures on {page #} {below}.

{The @ease {Brand} Floating System has two replaceable cartridges.

- o {insert color} = Mineral{s} {Cartridge}{53735-11 Brand Name}
- o {insert color} = Chlorine {Cartridge} SPA CHLORINE DISINFECTANT

The combination provides the Fresh Mineral Water benefits of cleaner, clearer and softer water that's easier to take care of.

Simply follow these easy steps:

1. Remove outer packaging from the SmartChlor Cartridge SPA CHLORINE DISINFECTANT.
2. Line up arrows on both cartridges, push together and lock.

3. Twist the dial on the [SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) to the setting number for your {spa} {hot tub} (see chart based on gallons {and pump run time per day})
4. Toss into the {spa} {hot tub}. It will float in the water at a slight tilt.
5. If you like, remove [@ease-Brand](#) from the spa while {bathing} {soaking}. Lift out [@ease-Brand](#) and let drain into the {spa} {hot tub}. Place on any surface not susceptible to chlorine bleaching. Remember to return it to the {spa} {hot tub} afterwards.}

{Replacing the [Chlorine Cartridge SPA CHLORINE DISINFECTANT](#)

When the {product} [chlorine cartridge SPA CHLORINE DISINFECTANT](#) is almost empty {it} {the system} will {begin to} slowly {flip} {roll} over giving you {a day or two} notice that it's about time to replace. If it stays on its side longer than a day or two, pull unit out of the water and let it drain. Reset it in the water to see if it flips completely. {If it does} {When it completely {flips} {rolls} over} replace by {rotating the two cartridges until the arrow on the [chlorine cartridge SPA CHLORINE DISINFECTANT](#) aligns with the unlock symbol on the [mineral cartridge 53735-11 Brand Name](#)} and pull apart. {Follow Step #1 above for attaching a {filled} {new} [chlorine cartridge SPA CHLORINE DISINFECTANT](#)}.}

Do not remove the [chlorine cartridge SPA CHLORINE DISINFECTANT](#) until the system has completely flipped. If the [chlorine cartridge SPA CHLORINE DISINFECTANT](#) {still} contains a small amount of chlorine after the system has {flipped} {rolled} over, place in the {spa} {hot tub} alone until completely empty. Do not allow the [chlorine cartridge SPA CHLORINE DISINFECTANT](#) to sink to the bottom or bleaching of the {spa} {hot tub} surface could occur. When completely empty, discard in trash {or offer for recycling}.

{Replacing Cartridges

- A. When the [@ease-Brand](#) Floating System flips completely over, remove the {insert color} [SmartChlor SPA CHLORINE DISINFECTANT](#) {chlorine} cartridge
 - [SmartChlor cartridge SPA CHLORINE DISINFECTANT](#) will last {about} {up to 4} {3-4} weeks {/} {for an average} 400 gallon {spa} {hot tub}
 - Floating System naturally lists in the water. To check if [SmartChlor SPA CHLORINE DISINFECTANT](#) is empty, lift up and drain all water from the system, then replace in the {spa} {hot tub} and see if it flips completely.
 - Detach [chlorine cartridge SPA CHLORINE DISINFECTANT SPA CHLORINE DISINFECTANT](#) by twisting to align with “unlock” arrow and pull apart
 - Attach new cartridge (see Step 2: Put{ting} the System to Work
 - Recycle empty cartridge or discard in trash. Note: If the [chlorine cartridge SPA CHLORINE DISINFECTANT SPA CHLORINE DISINFECTANT](#) still contains a small amount after detaching, place in {spa} {hot tub} to float on its own until empty. Do not let it sink to bottom as it may bleach {spa} {hot tub} surface.
- B. ~~Shock {spa} {hot tub} with a non-chlorine shock and replace the SmartChlor cartridge.~~
- C. ~~Replace the complete @ease-Brand Floating System every four months or when refilling spa. There may appear to be media left in the mineral cartridge after four months, but the minerals are spent.~~

{Step {Three} {Four}: Routine} {Regular} {Spa} {Hot Tub} Care

- Drain and refill {spa} {hot tub} {as directed by your {spa} {hot tub} manufacturer} {or every four months when FROG minerals need to be replaced}.

- Run filtration system as recommended by your {spa} {hot tub} manufacturer or at least 3 hours per day.
- {Periodically} {Regularly} {Weekly} test water {with [@ease{Brand}](#) Test Strips} and follow directions in {Step One} {Start-up} for maintaining pH, total alkalinity, and calcium hardness {and free chlorine levels with the precise [{Brand}](#) Test Strips} {that include special directions for using with these products}.

NOTE: pH is affected by {weather} bather load, chemicals used, evaporation and the make-up of your source water so maintaining water balance regularly is important.

- [SmartChlorSPA CHLORINE DISINFECTANT](#) will maintain {at least a 0.5 ppm} {a 0.5 to 1.0 ppm} free {active} chlorine level as long as the water is balanced. The SPA CHLORINE DISINFECTANT forms a chlorine {bank} {reserve} that is measured as total chlorine on a standard test strip/kit. This chlorine {bank} {reserve} readily shifts to {active} {free} chlorine as needed to maintain {a desirable} {our recommended} low level of chlorine {available for disinfection}. {Based on average {spa} {hot tub} usage,} chlorine will last {on average} {about} {up to} {2} {3}-4 weeks for {spas} {hot tubs} {up to} {of} {350} {400} {500} {600} gallons.}

NOTE: Free chlorine levels are reduced up to 75%* when using Frog minerals and [SmartChlorSPA CHLORINE DISINFECTANT](#) Technology

{NOTE: Why [@ease{Brand}](#) Test Strips? The [SmartChlor-cartridgeSPA CHLORINE DISINFECTANT](#) forms a chlorine reserve that will be inaccurately measured as total chlorine on other test strips. Unlike conventional chlorine, the [SmartChlorSPA CHLORINE DISINFECTANT](#) reserve readily shifts to free chlorine as needed, maintaining {spa} {hot tub} health with a low level of chlorine.}

- Shock the {spa} {hot tub} with {granular chlorine or} a non-chlorine shock when you replace the [SmartChlor-CartridgeSPA CHLORINE DISINFECTANT](#), or once a month or if the water looks cloudy {and/or add a {spa} {hot tub} clarifier according to label directions}. {With SPA CHLORINE DISINFECTANT, far less shocking is required compared to standard water treatments that require weekly shocking or shocking after every use.} See Troubleshooting for other issues.
- Replace the SPA CHLORINE DISINFECTANT cartridge when the system flips over (see Replacing the [Chlorine-CartridgeSPA CHLORINE DISINFECTANT](#)) {and [the](#) complete [@ease{Brand}](#) System [that includes a {53735-11 Brand}](#) as directed}. {Replace the complete Floating System every 4 months or when draining and refilling the {spa} {hot tub}. Even if, upon shaking the [mineral-cartridge{53735-11 Brand Name}](#), it appears there is spent media left inside, once wetted the time released minerals in the cartridge are effective up to four months.}

{NOTE: This product may be removed from the {spa} {hot tub} when in use. Lift out of the water and let drain into the {spa} {hot tub}. Then place on {the rail of the {spa} {hot tub} or} {any} surface that is not susceptible to bleaching from the chlorine. Remember to replace the product once exiting the {spa} {hot tub}.}

Troubleshooting

Cloudy Water or Low Chlorine Levels

- Check water balance. pH and Total Alkalinity need to be in the proper ranges for the [@ease{Brand}](#) [Floating{Brand}](#) System to work correctly
- Check [SmartChlor-cartridgeSPA CHLORINE DISINFECTANT](#) and replace if

empty—see instructions under {Replacing Cartridges} {Step 3: Put{ting} the System to Work}

- If [SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) is not empty, turn dial setting up 1 number and monitor chlorine levels for a few days while maintaining water balance. If needed turn the dial up again.
- Check your calendar. The entire [@ease {Brand} Floating {Brand} System](#), including the [mineral cartridge {53735-11 Brand Name}](#), needs to be replaced every four months. Without the minerals, [SmartChlor SPA CHLORINE DISINFECTANT](#) will not be enough to sanitize the {spa} {hot tub}.

[SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) Life

- If hot tub is larger than 400 gallons or has significant bather load, [you may require a higher dial setting which will shorten the cartridge life will be shorter.](#)
- [If you think the cartridge setting is too high.](#) You can turn the dial setting down 1 number and monitor chlorine levels for a few days while maintaining water balance. If needed turn the dial down again.
- If [FROG @ease {Brand}](#) continually is sucked into the skimmer or filter well, tether the product to the tub away from the jets.
- Remove [FROG @ease {Brand}](#) while using the hot tub with the jets running.

High Chlorine Levels

- This is highly unlikely with [@ease {Brand}](#) because [SmartChlor SPA CHLORINE DISINFECTANT](#) is self-regulating. However, if you use standard test strips, it may appear that total chlorine is higher than the free chlorine. No worries—the strip is measuring the [SmartChlor SPA CHLORINE DISINFECTANT](#) reserve, which will shift to free chlorine as needed. Please always use the [@ease {Brand}](#) Test Strips that were included with your System.

Learn more at [www.KingTechnology.com \[company website\]](#) or call 800.222.0169
[Register your Floating System at KingTechnology.com \[company website\]](#)

[Operational Instructions for ~~{In-Line}~~ {Filter Well} System]
[All text is optional]

Sanitizing System Operating Instructions

~~FROG @ease {Brand}~~ is a ~~{spa} {hot tub} sanitizing system~~ ~~{{(specially made) {custom {fit} {designed}} {exclusively} for {JacuzziBrand} {Sundance} {Bullfrog} Spas} is the {spa} {hot tub} sanitizing system~~ that takes the guess work out of water care so you always feel at ease while enjoying your ~~{spa} {hot tub}~~.

- ~~• @ease creates Fresh Mineral Water that's cleaner, clearer and softer~~
- ~~• @ease employs SmartChlor Technology that knows when and how much free chlorine is needed so it uses less.~~
- ~~• @ease requires far less shocking — only once a month!~~

For complete instructions read the entire manual

Register your ~~{In-Line}~~ {Filter Well} System at [Company website]

The ~~{In-Line}~~ {Filter Well} System is made up of (A) a cartridge holder that fits inside the filter well and holds the two cartridges, (B) a mineral cartridge that helps control bacteria in the water and (C) a SPA CHLORINE DISINFECTANT cartridge that helps support the minerals while oxidizing contaminants like body oils (and ammonia compounds responsible for smelly chloramines). The cartridges are adjustable to meet your specific ~~{spa} {hot tub} water care needs~~.

Step One: Prepar{e}{ing} the {Hot Tub} {Spa}

1. Fill ~~{spa} {hot tub}~~ with fresh water. If using source water that is high in ~~calcium~~, iron or other metals, see your dealer before filling the tub. It may require the use of a hose filter and/or metal control product. If previously using bromine {and switching to [SmartChlor SPA CHLORINE DISINFECTANT](#)}, you must drain and refill ~~{your {spa} {hot tub}}~~ {before using this product} {first}. {If previously using dichlor you may convert to [SmartChlor SPA CHLORINE DISINFECTANT](#) without having to drain the {spa} {hot tub} {as long as your stabilizer level is below 80 ppm}.}
2. Clean ~~and/or~~ replace filter cartridges {when dirty} (*Follow manufacturer's instructions*).
3. Balance water following steps a through d in order. IMPORTANT: Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with the jets on and wait 6 hours before testing again and adding any additional balancing chemicals.
 - a. Take a water sample from the ~~{spa} {hot tub}~~ and dip a [FROG @ease {Brand}](#) Test Strip into it.
 - b. Look at the Total Alkalinity reading first. Adjustments should be made to bring the Total Alkalinity in the range of 80 – 120 ppm prior to making any adjustments to pH even if it throws pH off further. {Since pH tends to rise in hot tubs, maintaining a Total Alkalinity closer to the low end of 80 will make managing the hot tub easier.}
 - c. After the Total Alkalinity is in range, test for pH. It should be between 7.2 and

Water Balance Guidelines

pH:	7.2-{7.6} {7.8}
Total Alkalinity:	80-120 ppm
Calcium Hardness:	150-250 ppm
Total Dissolved Solids:	<1500
{Stabilizer/Conditioner	20-80 ppm}

- 7.8. If higher or lower, add a pH adjuster. {Again, due to rising pH in hot tubs, try to maintain as close to the low end of 7.2 as possible.}
- d. Lastly test for Calcium Hardness. It should be between 150 and 250 ppm. If higher, partially drain the {spa} {hot tub} (about 6 inches) and fill with water low in calcium. If lower, add Calcium Increaser.

{If balancing takes longer than 2 days, shock the water and maintain a chlorine level while continuing balancing.}

4. **Very Important!** After balancing and before using cartridges, {establish} {ensure there is} an initial residual of 0.5-1.0 ppm {free} chlorine with {Frog Jump Start}{53735-12 Brand Name} start-up shock {included in this package} that quickly dissolves with an effervescent {fizzing} action – one packet per {500} {600} gallons} {a chlorine shock}.

~~NOTE: Free Chlorine levels are reduced up to 75%* when using Frog minerals~~

5. {Heat water to the manufacturers recommended temperature.} When {spa} {hot tub} reaches operating temperature per your {spa} {hot tub} manufacturer’s directions, remove the shrink wrap from both cartridges. Set the mineral and {chlorine} {sanitizer} {disinfectant} {SPA CHLORINE DISINFECTANT} cartridges according to directions on {page #} {below} and insert them into the System.
6. {Begin routine {spa} {hot tub} care (see Step 4: Routine Hot Tub Care) as soon as {spa} {hot tub} {start-up is complete} {is prepared}.}

{Step Two: Set{ting} the Cartridges}

The ~~Filter Well~~{Brand} System uses two replaceable cartridges.

- {Insert Color} = Mineral{s} {Cartridge}{53735-11 Brand Name}
- {Insert Color} = {Chlorine} {SmartChlor} {Cartridge}SPA CHLORINE DISINFECTANT

SmartChlor Cartridge SPA CHLORINE DISINFECTANT Setting Chart		
{Brand} Models	Gallons	Setting #
a, b, c	X-X	#
d, e, f	X-X	#
g, h, i	X-X	#
j, k, l	X-X	#

The combination provides the Fresh Mineral Water benefits of cleaner, clearer and softer water that’s easier to take care of.

- Remove the SmartChlor cartridge SPA CHLORINE DISINFECTANT from its bag before proceeding.
- Set the {insert color} Mineral Cartridge}{53735-11 Brand Name} to # using the dial on the bottom of the cartridge. No further adjustments are necessary for the life of the cartridge.
- Set the {insert color} SmartChlor Cartridge SPA CHLORINE DISINFECTANT to the setting that matches your {spa} {hot tub} {model number or} size in gallons. If needed, you may increase or decrease the dial setting.
- Once set, SmartChlor SPA CHLORINE DISINFECTANT will maintain a low 0.5 to 1.0 ppm chlorine level as long as the pH stays within 7.2 and 7.8 so there is little need to adjust the cartridge setting.
- ~~If needed, you may increase the dial setting.~~

Step Three: Put{ting} the System to Work

- Remove filter [well cover](#) {filter [snap](#) cap}. [Hold {weir door} {/} {filter plate} out into the hot tub slightly or remove from the hot tub.](#)
- [If cartridge carrier is already installed between the filter cartridges, remove](#) {Remove cartridge {holder} {carrier} {from under [weir door](#) {/} {filter plate}} {by pulling up on the handle} {by squeezing the handle together and pulling up}.
- Snap the [Pool Frog Mineral Reservoir](#){53735-11 Brand Name} into {one} {top} {bottom} {left side} {right side} {front} {back} opening of the cartridge {holder} {carrier}. [To do this,](#) {insert cartridge into opening {at an angle and twist} until the tab on the {holder} {carrier} locks into the {catch} {indent} on the cartridge} [with the {Brand} logo facing the {holder} {carrier}](#), put the dial end of cartridge into the {holder} {carrier} first by connecting the tab on the {holder} {carrier} with the indent in the cartridge. Then push the top part of the cartridge {up} {in} until it snaps into place.
- Follow the same procedure for the [Pool Frog Mineral Reservoir](#){53735-11 Brand Name} Cartridge into the other opening.
- [Replace](#) {Insert} cartridge {holder} {carrier} {in filter well} [between the filter cartridges](#) under [weir door](#) {/} {filter plate} pushing down until it stays in place.
- Replace {filter well cover} {filter [snap](#) cap}.

[\[Callouts for this section\]](#) {Dial end of} Cartridge, Carrier, {Detail of Cartridge} Carrier Tab

Replacing Cartridges

- {Replace {insert color} [Mineral Cartridge](#){53735-11 Brand Name} every four months
 - Discard it in the trash even though you will hear the spent media left inside
 - Don't attempt to reuse: the minerals are spent after 4 months
 - {Use the enclosed stickers to remind you when it's time to replace}
- Replace {insert color} [SmartChlor Cartridge](#)[SPA CHLORINE DISINFECTANT](#) when empty [based on the FROG {Brand} test strip showing a lighter color than the out indicator {on the {test strip} bottle}](#)
 - [The life of the](#) cartridge varies depending on {spa} {hot tub} size and number of users. The [SmartChlor Cartridge](#)[SPA CHLORINE DISINFECTANT](#) will last {about 3-4} {up to 4} {2-4} weeks for an average 400 gallon hot tub.
 - Drain water from cartridge to ensure it is empty
 - Discard in trash or recycle}

Step Four: Routine {Spa} {Hot Tub} Care:

- Drain and refill {spa} {hot tub} as directed by your {spa} {hot tub} manufacturer} {or every four months when FROG minerals need to be replaced}.
- Run filtration system as {the manufacturer recommends} {directed by your {spa} {hot tub} manufacturer}.
- Regularly test water {with [FROG @ease](#){Brand} Test Strips and follow directions in Step One for maintaining pH, Total Alkalinity {and Calcium Hardness}.
- NOTE: pH is affected by {weather} bather load, chemicals used, evaporation and the make-up of your source water so maintaining water balance regularly is important.
- [SmartChlor](#)[SPA CHLORINE DISINFECTANT](#) will maintain {at least a 0.5 ppm} {a 0.5 – 1.0 ppm} free chlorine level as long as the water is balanced. {On the [@ease](#) {Brand} Test Strip is an Out Indicator that shows when the [SmartChlor Cartridge](#)[SPA CHLORINE DISINFECTANT](#) is empty.} {Based on average {spa} {hot tub} usage,} chlorine will last {on average} {about} {up to} {2} {3}-4 weeks for {spas} {hot tubs} {up to} {of} {350} {400} {500} {600} gallons.}

NOTE: Free chlorine levels are reduced up to 75%* when using Frog minerals {and [SmartChlor](#)[SPA CHLORINE DISINFECTANT](#) Technology}.

{NOTE: Why [@ease{Brand}](#) Test Strips? The [SmartChlor cartridge SPA CHLORINE DISINFECTANT](#) forms a chlorine reserve that will be inaccurately measured as total chlorine on other test strips. Unlike conventional chlorine, the [SmartChlor SPA CHLORINE DISINFECTANT](#) reserve readily shifts to free chlorine as needed, maintaining spa health with a low level of free chlorine.}

- Shock the {spa} {hot tub} with {granular chlorine or} {a non-chlorine shock} } {when you replace the SPA CHLORINE DISINFECTANT Cartridge or once a month} {or if the water looks cloudy}. {With SPA CHLORINE DISINFECTANT, far less shocking is required compared to standard water treatments that require weekly shocking or shocking after every use.} See troubleshooting for other issues.
- {Remember to} Replace your [SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#)s and complete [FROG @ease {Brand}](#) system [\(that comes with a {53735-11 Brand Name}\)](#) as directed {under “Step 3: Put{ting} the System to Work”}.

Troubleshooting

Cloudy Water or Low Chlorine Levels

- Check water balance. pH and Total Alkalinity need to be in the proper ranges for the [@ease {Brand}](#) System to work correctly. “Since pH tends to rise in hot tubs, maintain Total Alkalinity and pH closer to the lower end of the ideal range on the [FROG @ease {Brand}](#) Test Strip.”
- Check [SmartChlor cartridge SPA CHLORINE DISINFECTANT](#) and replace if empty—see instructions under Step 3: Put{ting} the System to Work
- If [SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) is not empty, turn dial setting up 1 number and monitor chlorine levels for a few days while maintaining water balance. If needed turn dial up again.
- Check your calendar. The [entire {Brand} System, including the mineral cartridge {53735-11 Brand Name}](#), needs to be replaced every four months. Without the minerals, [SmartChlor SPA CHLORINE DISINFECTANT](#) will not be enough to sanitize the {spa} {hot tub}. Simply purchase a new [Filter Well {Brand} System package for a new mineral cartridge {53735-11 Brand Name}](#).

[SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) Life

- If hot tub is larger than 400 gallons or has significant bather load, [you may require a higher dial setting which will shorten the cartridge life will be shorter.](#)
- [If you think the cartridge setting is too high.](#) You can turn the dial setting down 1 number and monitor chlorine levels for a few days while maintaining water balance. If needed turn the dial down again.

High Chlorine Levels

- This is highly unlikely with [@ease {Brand}](#) because [SmartChlor SPA CHLORINE DISINFECTANT](#) is self-regulating ~~the free chlorine levels~~. However, if you use standard test strips, it may appear that total chlorine is higher than the free chlorine. No worries—the strip is measuring the [SmartChlor SPA CHLORINE DISINFECTANT](#) reserve, which will shift to free chlorine as needed. Please always use the [FROG @ease {Brand}](#) Test Strips that were included with your System.

Learn more at [Company website] or call 800.222.0169
[Register your {Brand} Sanitizing System at \[Company website\]](#)

[All text on this page is optional]

A perfect companion to {minerals} {reduced chlorine systems}
The chlorine that makes it easy to maintain 0.5 ppm free chlorine.

Don't just use chlorine – use {less!} {chlorine with a {twist} {difference} {distinction}}

The controlled-release chlorine {that's ready when {you need it} {needed}} {that lasts for weeks}

Ideal for high bather loads as chlorine is ready when {you need it} {needed}

A more efficient way to use chlorine {that} {to} disinfect{s} and oxidize{s}

Reduces {free} chlorine use up to 75%* {when used with Frog minerals}

The low-chlorine solution for Frog mineral systems

SPA CHLORINE DISINFECTANT dissolves slower than standard chlorine products making it easier to maintain a low level, and easier to avoid over chlorination

Reduces the need to shock

No {additional} shocking {needed} {required} before or after {each} {spa} {hot tub} use

Reduces shocking by up to 75%**

Less work with prefilled cartridges, precise output and {fewer} {minimal} shock treatments

The chlorine {that actually helps maintain a neutral pH} {with a built-in pH stabilizer}

{Because} {When} {the} {your} pH {stays} {is} neutral, {the} {your} {free} chlorine is {more effective} {at its best}.

With fewer pH adjustments and less shocking required, SPA CHLORINE DISINFECTANT uses less chemicals than standard {spa} {hot tub} water treatments

Reduces overall chemical use with less shocking and pH adjustments

SPA CHLORINE DISINFECTANT {cartridge} contains chlorine but with a {positive} {beneficial} {innovative} twist

- It reduces the potential for pH decline
- It prevents smelly {chloramine} odors
- It nearly eliminates shocking
- It helps prevent over chlorinating {It lasts longer when used with minerals}
- {With minerals, it lasts longer}

[All text on this page is optional]

~~• (With minerals, it lasts longer)~~

The SPA CHLORINE DISINFECTANT forms a chlorine {bank} {reserve} that is measured using a total chlorine test. This chlorine {bank} {reserve} readily shifts to free chlorine as needed to maintain a desirable low level of chlorine available for disinfection.

Unlike {all} other chlorines, there is no need to shock when the total chlorine is {twice the level of} {higher than} the free chlorine. Instead, the chlorine {bank} {reserve}, (measured as total chlorine) is waiting to shift to free chlorine as {needed} {it is depleted}. This also allows for the SPA CHLORINE DISINFECTANT {to oxidize odor causing contaminates {like chloramines}} {to nearly eliminate odor causing contaminates} from your {spa} {hot tub} water.

When testing your water, there is no need to compare the total chlorine level to the free. Simply maintain a low 0.5-1.0 ppm free chlorine at all times. However if you notice your total chlorine dropping, that is a good sign that the cartridge may be getting{nearly} empty.

SPA CHLORINE DISINFECTANT {boosts the concentration of} {super charges} Frog minerals for even greater effectiveness

The {combination} of Frog minerals and SPA CHLORINE DISINFECTANT is very effective in hot water environments as it is easier to maintain a low chlorine level.

Mineral System with Smart Chlor

For cleaner, clearer and softer water that cuts the use of chlorine by 75%*

Each [SmartChlor SPA CHLORINE DISINFECTANT](#) molecule contains 2 chlorine atoms – one for immediate use and one left in reserve to release as {needed} {bather load varies}

The simple science of maintaining a consistent sanitizer level

No peak and valley sanitizing

Smart Chlor creating a {reserve} {bank} of untapped chlorine that continually converts into active chlorine against bacteria

Floating {Sanitizer} {Sanitizing System} for {hot tubs} {spas}

Proprietary blend of minerals {with} {plus} [SmartChlor SPA CHLORINE DISINFECTANT](#) Technology

Adjust{able}{s} up to 600 gallons

Automatic All-in-One {Hot Tub} {Spa} Care

Complete {Hot Tub} {Spa} Care System

{Creates} Fresh Mineral Water with [SmartChlor SPA CHLORINE DISINFECTANT](#)

{An} innovative slow dissolving mineral system {that destroys bacteria while using {up to 75%} less chlorine* – creating cleaner, clearer and softer water}

{1 floating {spa} {hot tub} {sanitizer} {sanitizing system}} {2 pre-filled cartridges} +
{plus} # {Brand} Test Strips + {plus} {and} # ~~Frog Jump Start~~{53735-12 Brand Name}
{start-up shock}
Fresh Mineral Water {Easy}

[All text on this page is optional]

An {exclusive} {unique} {proprietary} {innovative} {stand out} water care system from FROG that delivers 4 primary advantages

EXPERIENCE THE DIFFERENCE

Our exclusive water care system works in a whole different way. The combination of FROG minerals and a low level of chlorine allows you to enjoy these 4 advantages.

THE ALTERNATIVE WAY TO SANITIZE

A fresh approach to clean, clear water using mineral technology that uniquely offers these 4 advantages

THE WATER SANITIZING SOLUTION

Our water care system works differently to eliminate bacteria so you enjoy 4 advantages

AN ALTERNATIVE APPROACH TO WATER CARE

With FROG minerals and a low level of chlorine, you'll experience fresh water with these 4 advantages

FROG introduces an exclusive water care system that delivers 4 primary advantages.

1. Cleaner because it kills bacteria two {2} ways – with minerals and {a low level of}pre chlorine
2. Minerals help keep the pH balanced for Clearer water that shines
3. Minerals condition the water for Softer effects {feel}
4. Cartridges are pre-filled {for} {no mess, no guess, no stress} making maintenance Easier.

Replace the ~~SmartChlor Cartridge~~SPA CHLORINE DISINFECTANT when system flips over ({on average} {about every} {approximately every} {typically in} {{2}{3}-4} {up to 4} weeks)

Replace ~~Mineral Cartridge~~{53735-11 Brand Name} in ~~FROG @ease~~{Brand} System every 4 months

{Learn more at} {For more advantages see} www.freshmineralwater.com

{Uses} Up to 75% less chlorine* {with no {frustrating} yo-yo chlorine levels}

Cuts chlorine use up to 75%* while maintaining a constant level

Uses only 25% of normal chlorine levels

Chlorine lasts 3X longer with ~~SmartChlor~~SPA CHLORINE DISINFECTANT and FROG Minerals

Shock {only} once a {per} month

The unique [SmartChlorSPA CHLORINE DISINFECTANT](#) technology does the work with far less shocking
Here's a shock – No need for weekly shocking your {hot tub} {spa}
The chlorine that automatically shocks the water for 4 weeks
Self {shocking} {refreshing} {chlorinating} water care system
So little shocking, it's shocking!
Takes the shock out of {hot tub} {spa} care

[All text on this page is optional]

No shocking the {hot tub} {spa} after each use
{Hot Tub} {Spa} Water Care – for once you're not in for a shock
Making a little chlorine go a long way
Just what you need – and no more
Because less is more

Self regulates for continuous crystal clear water
The unique chlorine reserve goes into action only when needed
The two step chlorine that's time released to meet {hot tub} {spa} demand
When you hop in, [SmartChlorSPA CHLORINE DISINFECTANT](#) goes to work keeping water clean and clear

Easy on {hot tub} {spa} surfaces with less odors
Won't fade swimsuits or dry out skin or hair
Protects your {hot tub} {spa} investment while providing a more enjoyable experience
Easy on your nose

Single color match for easy reading – {exclusively with} {only from} [{Brand} Test Strips](#)

[{Brand} Test Strips](#) – the only sure test for [SmartChlorSPA CHLORINE DISINFECTANT](#)

Simple Go – No Go water testing only from Frog products
The easy test strips only from Frog

The innovation of [SmartChlorSPA CHLORINE DISINFECTANT](#)

These benefits provided {brought to you} by {the breakthrough technology of} [SmartChlorSPA CHLORINE DISINFECTANT](#) {Technology}.

The chlorine that {reacts} {responds} to {hot tub} {spa} use by maintaining a consistent chlorine level

Unlike normal chlorine that is used up when you get in, [SmartChlorSPA CHLORINE DISINFECTANT](#) continues to maintain the same level

The {vigilant} {proactive} {responsive} {reactionary} chlorine that consistently {sanitizes your water} {keeps your water clean and clear} When you get in, normal chlorine levels drop but [SmartChlorSPA CHLORINE DISINFECTANT](#) remains constant

Fresh Mineral Water Cartridge Lasts 4 months

[SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) lasts {2}{3}-4 weeks

Floats in the {hot tub} {spa}

Flips over when the [SmartChlor cartridge SPA CHLORINE DISINFECTANT](#) is empty

No adding chlorine daily

No more daily spoon fulls of chlorine

Ditch the daily dosing

Eliminates a cap full a day

No daily maintenance

Stop spoon-feeding your {hot tub} {spa}! {It can take care of itself}

[All text on this page is optional]

Sporks are for drive-ins, not {spa} {hot tub} care

No measuring, no math, no doubt.

[All text on this page is optional]

Intelligent water care

You don't have to be a genius to see it's {working} {innovative} {amazing} {smart} {not your ordinary water care} {in a class by itself}

A real breakthrough in {hot tub} {spa} {water} care. A real break for you.

All the clean without all the chlorine

No guesswork. Just less work.

{Hot Tub} {Spa} {water} care doesn't have to be so hard

To find out how you can be more [@ease-{Brand}](#) visit [www.{website}](#)

Whew, the honey-do-list {your to do list} just got shorter

To find out how you can shorten your honey-do {to do} list visit [www.{website}](#)

[@ease-{Brand}](#) at your service

Nicknamed "the butler" our innovative slow dissolving mineral system with

[SmartChlor SPA CHLORINE DISINFECTANT](#) for {hot tubs} {spas} will no doubt leave you more at ease

To find out how you can get your own butler visit [www.{website}](#)

Crystal clear {hot tub} {spa} – chemistry degree not required

[@ease-{Brand}](#) is @utomatic

Minerals Destroy Bacteria for less chlorine use

[SmartChlor SPA CHLORINE DISINFECTANT](#) slowly releases chlorine when needed

Together they create Fresh Mineral Water that's Cleaner, Clearer, Softer and Easier

The Mineral Innovation

- Reduces chlorine use up to 75%*
- Conditions the water for softness
- Easy on {spa} {hot tub} surfaces with less odors
- Lasts four full months

The Breakthrough Science {Technology} of [SmartChlorSPA CHLORINE DISINFECTANT](#)

- Maintains a consistent 0.5 ppm {sanitizer} {disinfectant} {chlorine} level
- Uniquely time released with a chlorine reserve ready when needed
- Easier to test with [{Brand}](#) Test Strips and one color match
- Oxidizes contaminants so far less shocking is required

How {Brand/Product} Works

- The Fresh Mineral Water Cartridge snaps together with the [SmartChlor CartridgeSPA CHLORINE DISINFECTANT](#)
- It floats in the hot tub {spa} and flips over when the [SmartChlor CartridgeSPA CHLORINE DISINFECTANT](#) is empty
- Replace the [SmartChlor CartridgeSPA CHLORINE DISINFECTANT](#) (every {2}{3}-4 weeks) and recycle the empty one

[All text on this page is optional]

Minerals and [SmartChlorSPA CHLORINE DISINFECTANT](#) completely sanitize any hot tub {spa} with no need for ozone, UV or other devices.
Compatible with ozone {UV} if desired

Start with a freshly filled {hot tub} {spa} or convert any {hot tub} {spa} to Fresh Mineral Water with [SmartChlorSPA CHLORINE DISINFECTANT](#)
No corrosion issues with [SmartChlorSPA CHLORINE DISINFECTANT](#)

Hassle free {hot tub} {spa} sanitization {water care} {maintenance}
Water looks and feels luxurious
[SmartChlorSPA CHLORINE DISINFECTANT](#) isn't susceptible to big swings in sanitizer levels after use. It maintains a consistent level that just works!

{Welcome to the} spoon-free zone
Step into easy
{Hot tub-life} {Spa-life}. Made easy
Take it easy on yourself

Easy-does-it
Easy-to-tell
Easy-to-see
Easy-to-use
Easy-to-understand
Easy-to-follow
Easy-to-wow
Easy-to-read
Easy-to-decode
More innovation. Less stress.
More innovation. Less upkeep.

More wows. Less oughs.

The difference between {liking and loving your {spa} {hot tub} {perfect pH and pHew!}
{green and clean}
How can anything this hard on bacteria feel so soft
Feel the difference
For {Hot Tubs} {Spas}

{Plus} {Also} {Includes} {#} [{Brand}](#) test strips and {#} [Jump Start{53735-12 Brand Name}](#) start-up shock
{Kit} Contains, 1 [Pool Frog Mineral Reservoir{53735-11 Brand Name}](#), 1 SPA CHLORINE DISINFECTANT, 1 [FROG Jump Start{53735-12 Brand Name}](#) start-up shock packet and 1 bottle of # [{Brand}](#) Test Strips
{Kit} Contains, {3} {4} SPA CHLORINE DISINFECTANT Cartridges and {3} {4} {maintenance} {non-chlorine} shock packets
[{1} {3}](#) Replacement [{SmartChlor SPA CHLORINE DISINFECTANT}](#) Cartridge{s}
Product shown is actual size
[All text on this page is optional]

[Protective Seal Copy]

Remove this {seal} {label} before use. Hold over the {hot tub} {spa} and allow any {fines} {particles} to dissolve in the water.

Frog Smart Technology
35 years of water treatment innovation
Yes, it does revolve around you
Relax & Enjoy

SPA CHLORINE DISINFECTANT {in the [FROG @ease-{Brand}](#) systems} contains no cyanuric acid (CYA). Therefore it will not cause CYA build-up that reduces the {effectiveness} {efficiency} of chlorine.

SPA CHLORINE DISINFECTANT {in the [FROG @ease-{Brand}](#) systems} destroys bacteria {and organic contaminants} without over-stabilizing your hot tub or adding additional cyanuric acid to your water.

With no cyanuric acid (CYA) in SPA CHLORINE DISINFECTANT, hot tub water does not get {dull} {old} {used up} as quickly. That means with FROG @ease, water will last a full 4 months before needing to be drained and refilled.

[Alternate copy for email registration card]

Welcome to [@ease-{Brand}](#) hot tub water care courtesy of FROG with Fresh Mineral Water and [SmartChlor SPA CHLORINE DISINFECTANT](#) Technology. To help you get the most

from your @ease-{Brand} System, we'd like to send you a few helpful start-up and basic maintenance tips via e-mail. Simply complete this card and throw it in the mail or visit www.kingtechnology.com and click on Join our

Newsletter. If you have any questions, please call our Customer Service Department at 800-222-0169. Sign up for helpful e-mails today!

Connect with us for special offers and helpful tips. Provide your email to receive offers, helpful hints, product information and more. Sign up now and be entered in our monthly drawing to win a special FROG gift. These include FROG product, water bottles, towels, and more. Or register online at frogproducts.com

Product Purchased: Flippin' FROG, Flippin' FROG XL, SPA FROG Floating System, Filter FROG, @ease-{Brand} Floating System, @ease-{Brand} In-Line System

Please Print: Name, email (please print carefully – you can opt out from receiving emails at any time., phone (home, mobile, work), Retailer (if known), city, state

[Additional copy for Water Balance Guide insert for Spa Cartridge use with Spa Chlorine Disinfectant (53735-14) – All copy is optional]

Hot Tub Water Balance Guide: How to get your hot tub relaxation ready. Before you balance:
Step 1 – Test your water for hardness. Take a sample of the water you plan to use to fill your hot tub to your dealer and check for hardness. If over 250 ppm, don't use that water to fill your hot tub! A simple hose filter from your local dealer can solve your issue.

Step 2 – After the hot tub is filled, take a sample of that water to your dealer to check for metals. If it tests high for metals, use a metal out product.

4 Tips for successful weekly balancing:

1. Always balance in order with Step 1: Total Alkalinity, then Step 2: pH and then Step 3: recheck water hardness.

Step 1: Total Alkalinity 80-120 ppm: Starting with Total Alkalinity (TA) first will make it much easier to balance the pH. Low TA: add TA Increaser or TA Up. High TA: add the same product that lowers pH usually called pH Decreaser or pH Down.

STOP: Proceed to pH ONLY when Total Alkalinity is between 80 and 120 ppm

Step 2: pH 7.2-7.8: pH is important for maintaining clean, clear water that doesn't attack surfaces or irritate skin. Low pH: add a pH Increaser or pH Up product. High pH: add a pH Decreaser or pH Down product.

STOP: Proceed to Water Hardness ONLY when pH is between 7.2 and 7.8.

Step 3: Water Hardness 150-250 ppm: Check Water Hardness AGAIN to make sure the calcium level is not too low so the water does not corrode surfaces. Low Water Hardness: if Water Hardness is under 150 ppm, add Calcium Increaser.

2. Add adjustment chemicals in small increments (follow label directions carefully)
3. Wait 6 hours between adjustments as your adjustment chemical has time to work
4. If balancing takes longer than 2 days, add a chlorine shock to maintain sanitizer levels.

When Total Alkalinity is 80-120, pH is 7.2-7.8 and water hardness is 150-250 ppm, your water is balanced.

[All text on this page is optional]

Troubleshooting Tips for [FROG @ease {Brand}](#) Floating or In-Line Systems

Hot tub owners tell us the [FROG @ease {Brand}](#) System is the easiest water care system they have ever used. The key is to maintain water balance and make sure you replace the [FROG @ease {Brand} SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) when empty (approximately every 3-4 weeks). Here are a few tips should you experience one of these issues:

Cloudy Water / Under Chlorination

1. Check your water balance. If your pH or TA is off, [SmartChlor SPA CHLORINE DISINFECTANT](#) will not be as effective. Most often the free chlorine residual is low when the pH is too high. Add pH Down to bring the pH into the ideal range of 7.2-7.8. The free chlorine residual will then come back up to 0.5 ppm after the pH adjust has been made.
2. Check to see if your [FROG @ease {Brand} SmartChlor Cartridge SPA CHLORINE DISINFECTANT](#) is empty. In some circumstances, the system may not completely flip over. Pull it out of the hot tub and drain all the water. Then put it back in. If it immediately flips over, it's empty. You can also shake it slightly to feel if there is any [SmartChlor SPA CHLORINE DISINFECTANT](#) material left in side.
3. Make sure your FROG Minerals have not been used for more than 4 months. When you hear minerals left inside the blue cartridge, it is because one of the minerals does not completely dissolve. The mineral that does the bacteria fighting however only lasts 4 months so you must replace the minerals at that time. We suggest making a note on your calendar for the replacement date of the minerals and be sure to replace every time you drain and refill your hot tub

High Combined Chlorine Levels

1. This is normal! With the [FROG @ease {Brand}](#) self-regulating process, there is a chlorine reserve that converts to free chlorine automatically when needed.
2. When testing [SmartChlor SPA CHLORINE DISINFECTANT](#) with a standard test strip, you will see the total chlorine is higher than the free chlorine. The total is the [SmartChlor SPA CHLORINE DISINFECTANT](#) reserve that is inactive. When the hot tub needs more free chlorine to kill bacteria, it pulls from the reserve. Therefore, no shocking is required when the total reading is different than the free reading.

To prevent confusion, always use [FROG @ease {Brand}](#) Test Strips. A 30-count bottle comes with every [FROG @ease {Brand}](#) Floating and In-Line System.

Dichlor is difficult to maintain at consistent levels {and requires constant dosing}

{Take the pain out of hot tub care} {Make it easy} with [FROG @ease](#)

Stop doing things the hard way

Switch {from Dichlor} to [FROG @ease {Brand}](#) and you'll never go back {to Dichlor}

Ease {up} {your hot tub care} {. Try} {with} [FROG @ease](#)

The easiest thing you'll ever do

Dichlor is a {drag} {chore}

{Dichlor is hard} {End the chore of Dichlor} {[FROG @ease {Brand}](#)} does everything Dichlor does but easier} with:

- {No} yo-yo chlorine levels
- {No} daily chlorine dosing
- {No} touching or spilling chlorine
- {No} wondering how much to add

[Fit's all 2013 and later model Bullfrog Spas excluding models X5L and X6R](#)